

CLAIMS

What is claimed is:

1. In a spill resistant carpet wherein a spill resistant coating is applied thereto
5 to prevent a liquid spill from permeating through the carpet, the improvement which comprises:

a spill resistant coating comprised of an ethylene-vinyl acetate polymer
comprised of crystalline ethylene segments prepared by emulsion polymerizing ethylene
and vinyl acetate in the presence of a stabilizing system, said ethylene-vinyl acetate
10 polymer having:

a crystalline melting point ranging from 35 to 110 °C measured at a heat rate of
20 °C per minute; and,

a tensile storage modulus of at least 1×10^5 dynes/cm² at a temperature of
115 °C and measured at 6.28 rad/sec.

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2. The spill resistant carpet of Claim 1 wherein the ethylene/vinyl acetate
polymer is comprised of from 15 to 90% by weight of polymerized units of vinyl acetate
and from about 10 to 85% by weight of polymerized units of ethylene based upon the
total weight of the polymer.

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3. The spill resistant carpet of Claim 1 wherein the polymer is comprised of
from 25 to 80% by weight of polymerized units of vinyl acetate and from about 20 to 75%
by weight of polymerized units of ethylene based upon the total weight of the polymer.

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4. The spill resistant carpet of Claim 1 wherein the polymer is comprised of
from 35 to 75% by weight of polymerized units of vinyl acetate and from about 25 to 65%
by weight of polymerized units of ethylene based upon the total weight of the polymer.

5. The spill resistant carpet of Claim 1 wherein the polymer is emulsion polymerized in the presence of a stabilizing system consisting of a nonionic surfactant and an anionic surfactant.

5 6. The spill resistant carpet of Claim 1 wherein the polymer has a tensile storage modulus of at least 2×10^5 dynes/cm² at 115 °C and measured at 6.28 rad/sec.

7. The spill resistant carpet of Claim 1 wherein the heat of fusion of said polymer is from about 5 to 100 joules per gram as measured at a heat rate of 20 °C per
10 minute.

8. The spill resistant carpet of Claim 1 wherein the heat of fusion of said polymer is from about 20 to 50 joules per gram as measured at a heat rate of 20 °C per minute.

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9. The spill resistant carpet of Claim 1 wherein said ethylene-vinyl acetate polymer has a glass transition temperature from +25 °C to about -35 °C as measured at a heat rate of 20 °C per minute.

20 10. The spill resistant carpet of Claim 6 wherein the crystalline thermal melting point of said polymer ranges from 45 to 90 °C as measured at a heat rate of 20 °C per minute.

11. The spill resistant carpet of Claim 1 wherein polymerized carboxylic acid
25 units are present in said polymer in an amount from about 0.2 to about 10% by weight of said polymer.

12. The spill resistant carpet of Claim 11 wherein the polymer has a tensile storage modulus of at least 2×10^5 dynes/cm² at 115 °C and measured at 6.28 rad/sec.

13. The spill resistant carpet of Claim 11 wherein the polymer is emulsion polymerized in the presence of a stabilizing system consisting of a nonionic surfactant and an anionic surfactant.

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14. The spill resistant carpet of Claim 11 wherein the heat of fusion of said polymer is from about 5 to 100 joules per gram as measured at a heat rate of 20 °C per minute.

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15. The spill resistant carpet of Claim 11 wherein the heat of fusion of said polymer is from about 20 to 50 joules per gram as measured at a heat rate of 20 °C per minute.

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16. The spill resistant carpet of Claim 11 wherein said polymer has a glass transition temperature from +25 °C to about -35 °C as measured at a heat rate of 20 °C per minute.

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17. The spill resistant carpet of Claim 12 wherein the crystalline thermal melting point of said polymer ranges from 45 to 90 °C as measured at a heat rate of 20 °C per minute.

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18. The spill resistant carpet of Claim 11 wherein the polymer comprises 15 to 90% by weight of polymerized units of vinyl acetate, 10 to 85% by weight of polymerized units of ethylene, and 0.5 to 5% by weight of polymerized units of acrylic acid, based on the total weight of the polymer.